



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,535	02/10/2004	Jae-Sung Lee	61610115US	3220
58027	7590	03/12/2007	EXAMINER	
H.C. PARK & ASSOCIATES, PLC 8500 LEESBURG PIKE SUITE 7500 VIENNA, VA 22182			LE, TUNG X	
			ART UNIT	PAPER NUMBER
			2821	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	03/12/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/774,535	LEE ET AL.	
	Examiner	Art Unit	
	Tung X. Le	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on the amendment filed 01/03/2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,3,7-9,11 and 15 is/are rejected.
- 7) Claim(s) 2,4-6,10 and 12-14 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 14 October 2005 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is a response to the Applicant's communication submitted on January 03, 2007. The arguments advanced therein are persuasive with respect to the rejections of record, and those rejections are accordingly withdrawn. In view of a further search, however, a new rejection is set forth below; and this office action is not made final. Thus, claims 1-15 are currently presented in the instant application.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, **a plurality of pixels, a plurality of first electrode, a second electrode, a plurality of light emitting elements, a light emitting layer, a plurality of transistors, a power supply voltage line, and a fed back of current line** (a fed back line using for feeding back current from the second electrode to the display controller) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities:

The following limitations of the elements in the invention are not shown in the Brief Description of the Drawings such as **a plurality of pixels, a plurality of first electrode, a second electrode, a plurality of light emitting elements, a light emitting layer, a plurality of transistors, a power supply voltage line, and a fed back of current line** (a fed back line using for feeding back current from the second electrode to the display controller).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2821

6. Claims 1, 3, 7-9, 11, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Hannari et al. (U.S. 2003/0063078 A1).

With respect to claim 1, Hanari discloses in figures 1 and 15-16 an image display, comprising a display panel (10) including a plurality of pixels (PX) arranged in a matrix pattern (figures 9-10 and 15 shows an array pixels in a matrix pattern), a plurality of first electrodes (a plurality of anodes of the light emitting elements [16]) individually formed corresponding to the pixels (PX), a second electrode (GND or the cathode of the light emitting elements) formed in common (GND) with the first electrodes (figure 15), a plurality of light emitting elements (16) provided between the first electrode (the anode side of the light emitting element) and the second electrode (GND or the cathode side of the light emitting element) and including a light emitting layer (a light emitting layer disposed in a panel of a display device would be inherently since every pixel of the EL panel has to have an optical light emitting layer for emitting the light to the panel), and a plurality of transistors (15 and 17) provided corresponding to the pixels and connected between the first electrodes (the anode side of the light emitting element) and a power supply voltage line (VDD) for controlling the current supply to the EL elements (16); a scan driver (YD) for sequentially selecting respective pixel lines (Y); a data driver (figure 15, signal line driver [XD]) for applying an RGB display signal corresponding to a pixel line (X) of the display panel (10) each time the pixel line is selected (paragraph [0070]); and a display controller (32) for using a current value fed back (figure 15 shows a fed back from the signal line driver [XD] or the second electrode to the controller [32]) from the second electrode (GND) of the display panel (10) and externally input RGB data

(video signal) to correct a white gray level (white balance) of the RGB data of the RGB data and generate RGB display data, and for providing the generated RGB display data to the data driver (paragraphs [0081-0082]), wherein the display controller (32) determines an amount of emitted light on the corresponding screen according to the fed back current to generate a brightness control reference signal (figure 15, and paragraph [0073]) corresponding to the amount of emitting light, and control the white gray level of the RGB data (video signal) according to the brightness control reference signal to control the brightness of the display panel (paragraphs [0073, 0077, 0081-0082]).

With respect to claim 3, Hanari discloses in figure 15 that the current fed back (figure 15 shows the current fed back to the controller) from the display panel (10) is a summation of currents flowing to the second electrode (GND or the cathode) from the first electrodes (the anodes of the emitting lights) of the respective pixels (PX).

With respect to claim 7, Hanari discloses in figures 1 and 15-16 an image display, comprising a display panel (10) including a plurality of pixels (PX) arranged in a matrix pattern (figures 9-10 and 15 shows an array pixels in a matrix pattern), a plurality of first electrodes (a plurality of anodes of the light emitting elements [16]) individually formed corresponding to the pixels (PX), a plurality of second electrodes (GND or the cathode of the light emitting elements) commonly (GND) formed for a plurality of groups (the first electrodes) defined by defining the first electrodes (the anodes of the emitting lights) as the groups (figures 15-16), a plurality of light emitting elements (16) provided between the first electrode (the anode side of the light emitting element) and the second electrode (GND or the cathode side of the light emitting element) and including a light

emitting layer (a light emitting layer disposed in a panel of a display device would be inherently since every pixel of the EL panel has to have an optical light emitting layer for emitting the light to the panel), and a plurality of transistors (15 and 17) provided corresponding to the pixels and connected between the first electrodes (the anode side of the light emitting element) and a power supply voltage line (VDD) for controlling the current supply to the EL elements (16); a scan driver (YD) for sequentially selecting respective pixel lines (Y); a data driver (figure 15, signal line driver [XD]) for applying an RGB display signal corresponding to a pixel line (X) of the display panel (10) each time the pixel line is selected (paragraph [0070]); and a display controller (32) for using a current value fed back (figure 15 shows a fed back from the signal line driver [XD] or the second electrode to the controller [32]) from the second electrode (GND) of the display panel (10) and externally input RGB data (video signal) to correct a white gray level (white balance) of the RGB data of the RGB data and generate RGB display data, and for providing the generated RGB display data to the data driver (paragraphs [0081-0082]), wherein the display controller (32) determines an amount of emitted light on the corresponding screen according to the fed back current to generate a brightness control reference signal (figure 15, and paragraph [0073]) corresponding to the amount of emitting light, and control the white gray level of the RGB data (video signal) according to the brightness control reference signal to control the brightness of the display panel (paragraphs [0073, 0077, 0081-0082]).

With respect to claim 8, Hanari discloses in figures 1 and 15-16 a method for driving an image display, comprising sequentially selecting respective pixel lines (having

scan lines [Y] from the scanning driver [YD]); applying an RGB display signal (video signal) corresponding to a pixel line (having data line [X]) of the display panel (10) each time the pixel line is selected (figure 15 and paragraph [0070]); and using a current value fed back (figure 15 shows a fed back from the signal line driver [XD] or the second electrode to the controller [32]) from a second electrode (GND) of the display panel (10) and externally input RGB data (video signal) to correct a white gray level (white balance) of the RGB data of the RGB data and generate RGB display data, and for providing the generated RGB display data to the data driver (paragraphs [0081-0082]).

With respect to claim 9, Hanari discloses in figures 1 and 15-16 an image display, comprising a display panel (10) including a plurality of pixels (PX) arranged in a matrix pattern (figures 9-10 and 15 shows an array pixels in a matrix pattern); a scan driver (YD) for sequentially selecting respective pixel lines (Y); a data driver (figure 15, signal line driver [XD]) for applying an RGB display signal corresponding to a pixel line (X) of the display panel (10) each time the pixel line is selected (paragraph [0070]); and a display controller (32) for using a current value fed back (figure 15 shows a fed back from the signal line driver [XD] or the second electrode to the controller [32]) from an electrode (GND) of the display panel (10) and externally input RGB data (video signal) to correct a white gray level (white balance) of the RGB data of the RGB data and generate RGB display data, and for providing the generated RGB display data to the data driver (paragraphs [0081-0082]), wherein the display controller (32) determines an amount of emitted light on the corresponding screen according to the fed back current to generate a brightness control reference signal (figure 15, and paragraph [0073])

corresponding to the amount of emitting light, and control the white gray level of the RGB data (video signal) according to the brightness control reference signal to control the brightness of the display panel (paragraphs [0073, 0077, 0081-0082]).

With respect to claim 11, Hanari discloses in figure 15 that the current fed back (figure 15 shows the current fed back to the controller) from the electrode the display panel (10) is a summation of currents flowing to a second electrode (GND or the cathode) from one or more first electrodes (the anodes of the emitting lights) that each correspond to a respective pixel (PX).

With respect to claim 15, Hanari discloses in figures 1 and 15-16 a method for driving an image display, comprising sequentially selecting respective pixel lines (having scan lines [Y] from the scanning driver [YD]); applying an RGB display signal (video signal) corresponding to a pixel line (having data line [X]) of the display panel (10) each time the pixel line is selected (figure 15 and paragraph [0070]); and using a current value fed back (figure 15 shows a fed back from the signal line driver [XD] or the second electrode to the controller [32]) from an electrode (GND) of an display panel (10) and externally input RGB data (video signal) to correct a white gray level (white balance) of the RGB data of the RGB data and generate RGB display data and generate RGB display data, and to provide the generated RGB display data to a data driver (the signal line driver [XD] and paragraphs [0081-0082]).

Allowable Subject Matter

7. Claims 2, 4-6, 10, and 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for indicating allowable subject matter for claims 2, 4-6, 10, and 12-14 were provided in the previous Office Action.

Response to Arguments

8. Applicant's arguments with respect to claims 1, 3, 7-9, 11, and 15 have been considered but are moot in view of the new ground(s) of rejection.

Citation of Relevant Prior Art

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sagano et al. (U.S. 2003/0016195 A1) discloses an image display apparatus and method of driving image display apparatus.

Nose (U.S. 2002/0163490 A1) discloses a liquid crystal display and method for driving the same.

Inquiry

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung X. Le whose telephone number is 571-272-6010. The examiner can normally be reached on 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Owens can be reached on 571-272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner
Tung Le
AU 2821

Trinh Dinh
TRINH DINH
PRIMARY EXAMINER

March 3, 2007